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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/519,950

12/29/2004

Alexis Collette

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7590

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1940 DUKE STREET

ALEXANDRIA, VA 22314

EXAMINER

NEGIN, RUSSELL SCOTT

ART UNIT

PAPER NUMBER

1631

NOTIFICATION DATE

DELIVERY MODE

06/19/2007

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/519,950	Applicant(s) COLLETTE ET AL.	
	Examiner Russell S. Negin	Art Unit 1631	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 46-90 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 46-90 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Election/Restrictions

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 46-56, drawn to a method for high throughput analysis of data sets generally described by sets of peaks characterized by position and area.

Group II, claim(s) 57-72, drawn to a computer program product, device, or system for manipulating and analyzing raw data. If this Group is elected, then the below mentioned species election is required.

Group III, claim(s) 73-78, drawn to a computer data signal embodied in a carrier wave, said computer data signal comprising extracted raw data produced by a separation technique for biomolecules. If this Group is elected, then the below mentioned species election is required.

Group IV, claim(s) 79, drawn to a software package, wherein said software package is embodied by ISEApeaks package 2.0.1.

Group V, claim(s) 80-88, drawn to a method comprising isolating a biological sample, extracting raw data from the sample and compiling raw data into a database. If this Group is elected, then the below mentioned species elections are required.

Group VI, claim(s) 89-90, drawn to a device for diagnostic or prognostic applications.

The inventions listed as Groups I through VI do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

Group I has the special technical feature not shared by the other groups of analysis of data sets generally described by sets of peaks characterized by position and

Art Unit: 1631

area. Group II has the special technical feature not shared by the other groups of comprising manipulating and analyzing raw data. Group III has the special technical feature not shared by the other groups of comprising extracting data produced by a separation technique for biomolecules. Group IV has the special technical feature not shared by the other groups of comprising the ISEApeaks package. Group V has the special technical feature not shared by the other groups of isolating a biological sample. Group VI has the special technical feature not shared by the other groups of being used in diagnostic and prognostic applications.

This application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

If Group II is elected, the following species election is required:

Species A: a fourth computer code device configured to parameterize at least one of the first set of raw data and the second set of raw data (claim 62)

Species B: a fourth computer code device configured to analyze at least one of the first set of raw data and the second set of raw data (claim 63)

Justification: Each fourth step is configured differently- one to parameterize and the other to analyze.

If Group III is elected, the following species election is required:

Art Unit: 1631

Species C: the computer data signal comprises smoothed raw data wherein the smoothed raw data includes data produced by a separation technique for biomolecules.

(claim 74)

Species D: the computer data signal comprises formatted raw data wherein the formatted raw data includes data produced by a separation technique for biomolecules.

(claim 75)

Species E: the computer data signal comprises parameterized raw data wherein the parameterized raw data includes data produced by a separation technique for biomolecules. (claim 76)

Species F: the computer data signal comprises analyzed raw data wherein the analyzed raw data includes data produced by a separation technique for biomolecules.

(claim 77)

Species G: the computer data signal comprises exported raw data wherein the exported raw data includes data produced by a separation technique for biomolecules.

(claim 78)

Justification: Each type of carrier wave data signal is processed differently.

If Group V is elected, the following four species elections are required. Applicant must choose a single species from each category.

Category 1: biological sample (claim 81)

Art Unit: 1631

Applicant must select from the group consisting of a growth culture, an electrophoretic sample, a chromatographic column, a blotting membrane, a centrifugation tube, or a microarray chip. Each sample is physically and chemically distinct.

Category 2: biomolecule selection (claim 83)

Applicant must select whether the biomolecule is selected from the group consisting of intact cells, cellular material, DNA, RNA or proteins. Each species of biomolecules is chemically and physically distinct.

Category 3: isolation technique (claim 85)

Applicant must select whether the isolating is a technique selected from the group consisting of centrifugation, precipitation, batch adsorption, chromatography, electrophoresis, and a microarray chip. Each biological technique operated under a distinct set of biological principles.

Category 4: bioinformatics tool (claim 87)

Applicant must select from the biological tools set forth in claim 87. Each technique operates under a physically distinct set of principles.

Applicant is required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims

subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

The following claim(s) are generic:

Group II: Claims 57-61 and 64-72

Group III: Claim 73

Group V: Claims 80, 82, 84, 86, and 88

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions

Art Unit: 1631

unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C.103(a) of the other invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Papers related to this application may be submitted to Technical Center 1600 by facsimile transmission. Papers should be faxed to Technical Center 1600 via the central PTO Fax Center. The faxing of such pages must conform with the notices published in the Official Gazette, 1096 OG 30 (November 15, 1988), 1156 OG 61 (November 16, 1993), and 1157 OG 94 (December 28, 1993)(See 37 CFR § 1.6(d)). The Central PTO Fax Center Number is (571) 273-8300.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Russell Negin, Ph.D., whose telephone number is (571) 272-1083. The examiner can normally be reached on Monday-Friday from 7am to 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, Ram Shukla, Supervisory Patent Examiner, can be reached at (571) 272-0735.

Information regarding the status of the application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information on the PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RSN

4 June 2007

R 6/4/07

SHUBO (JOE) ZHOU, PH.D.
PATENT EXAMINER

